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12/05/2003

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| EXAMINER |
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PHAM, HUONG Q

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| ART UNIT | PAPER NUMBER |
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3764

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/965,542

Applicant(s)

HOUSER ET AL.

Examiner

Huong Q. Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7 and 9-19 is/are rejected.
- 7) ☒ Claim(s) 4, 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

Claims 6, 9, are objected for containing terms which lack proper antecedent basis: "opposing sides" (claim 6), "the sides" (claim 9).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 5-6 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap or lack of connection between the elements. See MPEP § 2172.01. The omitted elements are: a second tightening link (or a means to connect the spring link to the first tightening link, and to attach the brace to a wearer).

### ***Double Patenting***

Claims 1, 2, 5, 6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6, 7, 9-11 of copending Application No. 10/188,907. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 2, 5, 6 of this application recite all the structure of claims 1, 6, 7, 9-11 of copending Application No. 10/188,907.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2, 5 –7, 9, 11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cote.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-3, 5-7, 9-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock in view of Davis, Kelly. As for claims 1, 5 and 11, Bullock teaches a super elastic support ( note that " superelastic is a relative term) having a tightening link A consists of a curved preshaped configuration, a spring link extending from the tightening link, a covering 1. While Bullock is silent about the material of the elastic cord A, Davis and Kelly teach the use of a super elastic memory alloy having a curved preshaped configuration ( figure 14 of Davis, figures 1 & 2 of Kelly). In view of the teaching of Davis or Kelly, it would have been obvious to an ordinary skill in the art at the time the invention was made to use a super elastic memory alloy for the brace of Bullock. The substitution of one material for another well known material in the art in order to provide the desired degree of elasticity or rigidity, is only a matter of obvious engineering choice which does not provide any unobvious result or novelty, and therefore is not patentable over prior art. Note that the superelastic material of Bullock, Kelly and Davis is capable of being " enlarges in respond to....". As for claims 2, 14, note the loop 2 of Kelly. As for claims 3, 10, note the hinge stop 2 of Bullock. As for claims 6, 9, note locking mechanism 6 of Bullock. As for claim 7, note that Bullock teaches first tightening links A located on both sides of the knee cap( figures 1 & 2) above the knee joint, second tightening links A located on both sides of the knee cap( figures 1 & 2 ) below the knee joint, and first and second spring links. As for claims 12, 13, Bullock teaches a first tightening link A with a curved between first and second sides ( note in figure 2 of Bullock, the curve extending from a first side ( at about #7 ) to a second side above the knee)

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, a second tightening link ( beginning at the other side of the knee) with a curved between first and second sides ( note in figures 1 and 3 of Bullock, the curve extending from a first side ( at about #7 ) to a second side above the knee), at least one spring link ( extending from one side above the knee, around the back of the leg to the other side of and above the knee) , locking mechanism 6, 1, 8, C, 7 , and stiffening means 2 & B. As for claim 13, note that the radius of curvature of one side of the thigh is different from the radius of curvature of the other side of the thigh. As for claim 15, note the 2 spring links on both sides of the kneecap. As for claim 16, stiffening means 2 & B is capable of adjusting the vertical separation of the first and second tightening links ( note that claim is only a functional statement of intended use without any further positive limitation of structure). As for claim 17, note hinge structure at reference # 2 of figure 2 of Bullock. As for claim 19, note the wire of Davis and Kelly.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bullock in view of Davis, Kelly, and further in view of Greenfield. Greenfield teaches the use of nickel titanium material for a brace. In view of the teachings of Greenfield and Davis and Kelly (note the comments above relative to the teachings of Bullock , Davis, and Kelly), it would have been obvious to an ordinary skill in the art at the time the invention was made to use nickel titanium material for the elastic cord A of Bullock.

Claims 1, 2, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly. Kelly shows every claimed feature of claims 1, 2, 5 except for the recited covering. The provision of a means to cover a brace member for the purpose of providing comfort for a user is well known in the art, and does not provide any unobvious result or novelty, and therefore is not patentable over prior art. Note that ~~an ordinary skill in the art~~ it would have been obvious to an ordinary skill in the art at the time the invention was made to leave out the coupling members 4, 11 , and make the bar 1 a unitary bar consisting of one tightening link and one spring link , if the need for sizing or height adjustment is not desired .

Claims 1, 2, 5, 6, are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis. As for claim 1, 5, 6, Davis shows every claimed feature of the claims (figure 14) except for a covering. The provision of a means to cover a brace member for the purpose of providing comfort for a user is well known in the art, and does not provide any unobvious result or novelty, and therefore is not patentable over prior art. As for claim 2, official notice is taken that the provision of loop for a spring link is very well-known in the art and therefore is not patentable over prior art.

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***Allowable Subject Matter***

Claims 4 and 8 are objected to as being dependent upon rejected base claims 1 or 7, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huong Q. Pham whose telephone number is (703) 305-5129. The examiner can normally be reached on 6:30 AM - 3:00 PM.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas Lucchesi can be reached on (703) 308 - 2698. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



NICHOLAS D. LUCCHESI  
SUPERVISORY PATENT EXAMINER  
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November 28, 2003